UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,882	03/21/2001	Christer Fahraeus	3782-0127P	1132

2292 7590 04/24/2003

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER	
CHEN, PO WEI	
ART UNIT	PAPER NUMBER
2697	

DATE MAILED: 04/24/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/812,882	FAHRAEUS ET AL.	
	Examiner	Art Unit	
	Po-Wei (Dennis) Chen	2697	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claims 1-34 are pending in this application. Claim 1, 6, 15, 18, 28, and 31 are independent claims. This action is non-final

The present title of the invention is "Method and System for Digitizing Freehand Graphics with User-Selected Properties".

The Group Art Unit of the Examiner case is now 2697. Please use the proper Art Unit number to help us serve you better.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 5-10, 15, 18, 21-24 and 26-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over More et al. (US 5,582,434; refer to as More herein) and further in view of Sekendur (US 5,582,434).

3. Regarding claim 1, More discloses a portable interactive electro-optic data input/output, processing comprising:

A system for digitizing a freehand graphic ("Hand printed text characters are recognized and preferably stored in a compact and standardized format, such as ASCII, for later display, processing, or output to external equipment", see lines 22-28 of abstract);

A base including: a surface; on the surface, a position-coding pattern ("These further embodiments of the interactive electro-optic slate permit the combination of display circuitry and much of the input pen position sensing circuitry", see lines 3-5 of column 9 and Fig. 3A and 3B);

A first area of the surface; and a second area of the surface ("The display 1, as shown in FIG 1, is preferably divided into five functional subsections. At the right edge and bottom of the display 1, individual regions 41-60 are provided to allow for user selection of textual and graphic display processing commands by touching a selected one of these regions with the input pen 3", see lines 29-34 of column 12 and Fig. 1);

A microprocessor adapted to perform the following actions ("Corresponding between counter setting and row number can also be calculated mathematically by the microprocessor 1031", see lines 34-39 of column 26 and element 1031 of Fig. 21):

Determining if the position detected by the optical sensor is in the first area or the second area; if the position is in the first area of the surface, then interpreting the position as a point in the freehand graphic; and if the position is in the second area of the surface, then interpreting the position as a selection of a property for the freehand graphic ("Associated with the display 1 is pen sense control means 2 for sensing and encoding location on the display surface where sufficient contract is made by, or proximity is detected with, an associated input pen 3", see lines 8-12 of column 12 and Fig. 1). It is noted that More discloses sense control to determine location on the display where the contact is made by the input pen. Thus, it is clear that by determining the location of the contact, it also determines if the contact is made in first area or second area on the surface, see lines 38-46 of column 12. Also, More discloses a process of

determining if the area of input, the first area, has been touched and if the regions of functions, the second area, have been touched, sees Fig. 7A-7E. Thus, limitation of claim is met.

It is noted that More does not disclose a drawing device having an optical sensor functional to detect a position in the position-coding pattern and the base is detectable by an optical sensor. However, this is known in the art taught by Sekendur. Sekendur discloses an apparatus and method for obtaining and outputting the position and/or movement of a moveable element on a data surface comprising: a writing surface formatted with a position-related coding means for indicating X-Y coordinates, an optical data input means or detector means, a data processing means, and a data output means (see 16-22 of column 3 and lines 1-28 of abstract and Fig. 7). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Sekendur to provide an interface and apparatus that is easy and simple to use (see lines 17-28 of column 2, Sekendur).

4. Regarding claim 2, it is noted that More does not disclose a drawing device includes microprocessor. However, this is known in the art taught by Sekendur. Sekendur discloses a self-contained pen-shaped stylus comprising a microcomputer (see lines 21-38 of column 6 and Fig. 7) which "data from the CCD is sent to the micro processor for analysis, and finally output onto a screen" (see lines 48-50 column 6). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Sekendur to provide an interface and apparatus that is easy and simple to use (see lines 17-28 of column 2, Sekendur).

5. Regarding claim 3, it is noted that More does not disclose the microprocessor resides externally of the drawing device. However, this is known in the art taught by Sekendur. Sekendur discloses a pen-shaped optical conduit is connected to a PC board placed inside a

personal computer (see lines 63-64 of column 5 and lines 13-17 of column 6 and Fig. 6). Also, Sekendur further discloses that "an output signal from the CCD or array of light sensitive element is sent to a computer or processor for processing and finally output to the user" (see lines 9-12 of column 5 and lines 46-50 of column 6). It is noted that in Fig. 6, the micro processor is located outside of the pen-shaped device, or the drawing device. It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Sekendur to provide an interface and apparatus that is easy and simple to use (see lines 17-28 of column 2, Sekendur). Further, the conventional location for the microprocessor are either in the stylus or in the plates. The exact location being dependent upon criteria such as intend use of the device.

6. Regarding claim 5, More discloses a portable interactive electro-optic data input/output, processing comprising:

A display to indicate a property selected from the second area ("The control subsystem 4 preferably indicates that it is in the text mode by highlighting the word 'TEXT' in 'TEXT/GRAPH', or by displaying a message in the user message area 61, see lines 67-68 of column 31 and lines 1-2 of column 32 and Fig. 1);

7. Regarding clam 6, More discloses a portable interactive electro-optic data input/output, processing comprising:

A base enabling the digitization of a freehand graphic ("Hand printed text characters are recognized and preferably stored in a compact and standardized format, such as ASCII, for later display, processing, or output to external equipment", see lines 22-28 of abstract);

A surface; on the surface, a position-coding pattern ("These further embodiments of the interactive electro-optic slate permit the combination of display circuitry and much of the input pen position sensing circuitry", see lines 3-5 of column 9 and Fig. 3A and 3B);

A first area of the surface; a second area of the surface visually distinct from the first area ("The display 1, as shown in FIG 1, is preferably divided into five functional subsections. At the right edge and bottom of the display 1, individual regions 41-60 are provided to allow for user selection of textual and graphic display processing commands by touching a selected one of these regions with the input pen 3", see lines 29-34 of column 12 and Fig. 1);

It is noted that More does not disclose the surface is detectable by an optical sensor. However, this is known in the art taught by Sekendur. Sekendur discloses an apparatus and method for obtaining and outputting the position and/or movement of a moveable element on a data surface comprising: a writing surface formatted with a position-related coding means for indicating X-Y coordinates, an optical data input means or detector means, a data processing means, and a data output means (see 16-22 of column 3 and lines 1-28 of abstract and Fig. 7). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Sekendur to provide an interface and apparatus that is easy and simple to use (see lines 17-28 of column 2, Sekendur).

8. Regarding claim 7, it is noted that More does not disclose that the second area is physically separated from the first area (assuming the claim means the two are not at all connected to one another). However, by having the second area physically separated from the first area does not provide additional function to the system disclosed by More. Thus, it would have been a matter of design choice. Also, it would appear that the claim is broad enough to be

read as just having two different, non-overlapping areas. If so, the claim could be read on areas 41-62 of Fig. 1, for example.

9. Regarding claim 8, More discloses a portable interactive electro-optic data input/output, processing comprising:

The second area includes a plurality of visually distinct sub-areas (see elements 41-60 of Fig. 1).

10. Regarding claim 9, More discloses a portable interactive electro-optic data input/output, processing comprising:

The second area includes a plurality of visually distinct sub-areas, and at least one of the sub-areas comprises a label representing a property for a freeform graphic (see elements 45 and 52 of Fig. 1).

11. Regarding claim 10, More discloses a portable interactive electro-optic data input/output, processing comprising:

The second area includes a plurality of visually distinct sub-areas ("The display 1, as shown in FIG 1, is preferably divided into five functional subsections. At the right edge and bottom of the display 1, individual regions 41-60 are provided to allow for user selection of textual and graphic display processing commands by touching a selected one of these regions with the input pen 3", see lines 29-34 of column 12 and Fig. 1).

At least one of the sub-areas comprises an indication of a property for a freeform graphic ("The control subsystem 4 preferably indicates that it is in the text mode by highlighting the word 'TEXT' in 'TEXT/GRAPH', or by displaying a message in the user message area 61", see lines 67-68 of column 31 and lines 1-2 of column 32 and Fig. 1).

12. Regarding claim 15, More discloses a portable interactive electro-optic data input/output, processing comprising:

A microprocessor ("Corresponding between counter setting and row number can also be calculated mathematically by the microprocessor 1031", see lines 34-39 of column 26 and element 1031 of Fig. 21);

Determining if the position detected by the optical sensor is in a first area of the surface; if the position is in the first area, then interpreting the position as a point in the freehand graphic; determining if the position detected by the optical sensor is in a second area of the surface; and if the position is in the second area, then interpreting the position as a selection of a property for the freehand graphic ("Associated with the display 1 is pen sense control means 2 for sensing and encoding location on the display surface where sufficient contract is made by, or proximity is detected with, an associated input pen 3", see lines 8-12 of column 12 and Fig. 1). It is noted that More discloses sense control to determine location on the display where the contact is made by the input pen. Thus, it is clear that by determining the location of the contact, it also determines if the contact is made in first area or second area on the surface, see lines 38-46 of column 12. Also, More discloses a process of determining if the area of input, the first area, has been touched and if the regions of functions, the second area, have been touched, sees Fig. 7A-7E. Thus, limitation of claim is met.

It is noted that More does not disclose a drawing device for digitally creating a freeform graphic, the drawing device comprising: an optical sensor for detecting a position in a position-coding pattern on a surface. However, this is known in the art taught by Sekendur. Sekendur discloses an apparatus and method for obtaining and outputting the position and/or

movement of a moveable element on a data surface comprising: a writing surface formatted with a position-related coding means for indicating X-Y coordinates, an optical data input means or detector means, a data processing means, and a data output means (see 16-22 of column 3 and lines 1-28 of abstract and Fig. 7). It is obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Sekendur to provide an interface and apparatus that is easy and simple to use (see lines 17-28 of column 2, Sekendur).

13. Regarding claim 18, More discloses a portable interactive electro-optic data input/output, processing comprising:

A method for digitizing a freehand graphic ("Hand printed text characters are recognized and preferably stored in a compact and standardized format, such as ASCII, for later display, processing, or output to external equipment", see lines 22-28 of abstract);

Receiving a position indicator detected on a position-coding pattern ("These further embodiments of the interactive electro-optic slate permit the combination of display circuitry and much of the input pen position sensing circuitry", see lines 3-5 of column 9 and lines 53-59 column 7 and Fig. 3A and 3B);

Determining if a position corresponding to the position indicator lies in a first area of the surface; if the position lies in the first area, then interpreting the position as defining part of the freehand graphic; determining if the position corresponding to the position indicator lies in a second area of the surface; and if the position lies in the second area, then determining a property for the freehand graphic ("Associated with the display 1 is pen sense control means 2 for sensing and encoding location on the display surface where sufficient contract is made by, or proximity is detected with, an associated input pen 3", see lines 8-12 of column 12 and Fig. 1).

It is noted that More discloses sense control to determine location on the display where the contact is made by the input pen. Thus, it is clear that by determining the location of the contact, it also determines if the contact is made in first area or second area on the surface, see lines 38-46 of column 12. Also, More discloses a process of determining if the area of input, the first area, has been touched and if the regions of functions, the second area, have been touched, sees Fig. 7A-7E. Thus, limitation of claim is met.

It is noted that More does not disclose an optical sensor. However, this is known in the art taught by Sekendur. Sekendur discloses an absolute optical position determination (see lines 1-28 of abstract and Fig. 7). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Sekendur to provide an interface and apparatus that is easy and simple to use (see lines 17-28 of column 2, Sekendur).

14. Regarding claim 21, More discloses a portable interactive electro-optic data input/output, processing comprising:

Determining a property for the freehand graphic; determining a sub-area of the second area in which the position lies; determining that the property for the freehand graphic comprises a property represented by the sub-area ("With the control subsystem 4 in the text mode, if the input pen 3 or 1014 touches the region 44 designated 'TEXT/GRAPH', the control subsystem enters the graphics mode. In the graphics mode, the path of the input pen 3 or 1014 on the document viewing and processing area 63 is traced and made visible, and coordinate positions of thus activated display elements are stored in the data memory 10 in association with the document being processed", see lines 33-41 of column 35 and lines 29-31 of column 36 and Fig. 1). It is noted that the visual property, text or graph, activates the area (see element 63 of Fig. 1)

to be under the mode chose by the user. Therefore, the visual property is determined by the position lies in the selection sub-area. Thus, limitation of claim is met.

15. Regarding claim 22, More discloses a portable interactive electro-optic data input/output, processing comprising:

If the position lies in the second area, then displaying a portion of the freehand graphic drawn after determining the property for the freehand graphic in visual accordance with the property ("With the control subsystem 4 in the text mode, if the input pen 3 or 1014 touches the region 44 designated 'TEXT/GRAPH', the control subsystem enters the graphics mode. In the graphics mode, the path of the input pen 3 or 1014 on the document viewing and processing area 63 is traced and made visible, and coordinate positions of thus activated display elements are stored in the data memory 10 in association with the document being processed", see lines 33-41 of column 35 and lines 29-31 of column 36 and Fig. 1). It is noted that when the property is determined to be graph mode, the path of input pen is made visible according to the mode. Thus, limitation of claim is met.

16. Regarding claim 23, More discloses a portable interactive electro-optic data input/output, processing comprising:

If the position lies in the second area, then after determining the property for the freehand graphic, applying the property determined to all portions of the freehand graphic created until a new property for the freehand graphic is selected ("With the control subsystem 4 in the text mode, if the input pen 3 or 1014 touches the region 44 designated 'TEXT/GRAPH', the control subsystem enters the graphics mode. In the graphics mode, the path of the input pen 3 or 1014 on the document viewing and processing area 63 is traced and made visible, and coordinate

positions of thus activated display elements are stored in the data memory 10 in association with the document being processed" and "In order to return to the text mode, the user touches the input pen 3 or 1014 once again to the region 44 designated 'TEXT/GRAPH'", see lines 33-41 of column 35 and lines 29-31 of column 36 and Fig. 1). It is noted that the property, text or graph, activates the area (see element 63 of Fig. 1) to be under the mode chose by the user. And until the user touches the sub-area of the property again, the mode does not change. Thus, limitation of claim is met.

17. Regarding claim 24, More discloses a portable interactive electro-optic data input/output, processing comprising:

If the position lies in the second area, then displaying a portion of the freehand graphic drawn before determining the property for the freehand graphic in visual accordance with the property ("With the control subsystem 4 in the text mode, if the input pen 3 or 1014 touches the region 44 designated 'TEXT/GRAPH', the control subsystem enters the graphics mode. In the graphics mode, the path of the input pen 3 or 1014 on the document viewing and processing area 63 is traced and made visible, and coordinate positions of thus activated display elements are stored in the data memory 10 in association with the document being processed" and "If graphics are drawn in the midst of typefont text, the position of the text is translated downward to accommodate the insertion of the graphics at the selected location in the document", see lines 33-41 and lines 44-47 of column 35 and Fig. 1). It is noted that when graphic mode is chosen, the previously entered text is visible to the user. Thus, limitation of claim is met.

18. Regarding claims 26 and 27, the statement presented, above, with respect to claim 18 is incorporated herein. Also see lines 3-8 of column 57.

19. Regarding claim 28, More discloses a portable interactive electro-optic data input/output, processing comprising:

A method for digitizing a freehand graphic ("Hand printed text characters are recognized and preferably stored in a compact and standardized format, such as ASCII, for later display, processing, or output to external equipment", see lines 22-28 of abstract);

Receiving from an indicator of a position in a selection area of a position-coding pattern ("These further embodiments of the interactive electro-optic slate permit the combination of display circuitry and much of the input pen position sensing circuitry", see lines 3-5 of column 9 and Fig. 3A and 3B);

Determining a visual property mapped to the position in the selection area; until a new indicator of a position in the selection area of the position coding pattern is received, applying the visual property to portions of the freehand graphic thereafter drawn by movement over a drawing area of the position-coding pattern. ("With the control subsystem 4 in the text mode, if the input pen 3 or 1014 touches the region 44 designated 'TEXT/GRAPH', the control subsystem enters the graphics mode. In the graphics mode, the path of the input pen 3 or 1014 on the document viewing and processing area 63 is traced and made visible, and coordinate positions of thus activated display elements are stored in the data memory 10 in association with the document being processed" and "In order to return to the text mode, the user touches the input pen 3 or 1014 once again to the region 44 designated 'TEXT/GRAPH'", see lines 33-41 of column 35 and lines 29-31 of column 36 and Fig. 1). It is noted that the visual property, text or graph, activates the area (see element 63 of Fig. 1) to be under the mode chose by the user.

Therefore, the visual property is mapped to the position of the selection area. Thus, limitation of claim is met.

It is noted that More does not disclose an optical sensor. However, this is known in the art taught by Sekendur. Sekendur discloses an absolute optical position determination (see lines 1-28 of abstract and Fig. 7). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Sekendur to provide an interface and apparatus that is easy and simple to use (see lines 17-28 of column 2, Sekendur).

20. Regarding claim 29, More discloses a portable interactive electro-optic data input/output, processing comprising:

Displaying an indication of the visual property when it is being applied ("The control subsystem 4 preferably indicates that it is in the text mode by highlighting the word 'TEXT' in 'TEXT/GRAPH', or by displaying a message in the user message area 61, see lines 67-68 of column 31 and lines 1-2 of column 32 and Fig. 1).

21. Regarding claim 30, the statement presented, above, with respect to claim 28 is incorporated herein. Also see lines 3-8 of column 57.

22. Regarding claim 31, More discloses a portable interactive electro-optic data input/output, processing comprising:

A base enabling the digitization of a freehand graphic ("Hand printed text characters are recognized and preferably stored in a compact and standardized format, such as ASCII, for later display, processing, or output to external equipment" and "These further embodiments of the interactive electro-optic slate permit the combination of display circuitry and much of the input

pen position sensing circuitry", see lines 22-28 of abstract and lines 3-5 of column 9 and Fig. 3A and 3B);

A surface; on the surface, a position-coding pattern ("These further embodiments of the interactive electro-optic slate permit the combination of display circuitry and much of the input pen position sensing circuitry", see lines 3-5 of column 9 and Fig. 3A and 3B);

A first area of the surface; a second area of the surface having no overlap with the first area; the second area having a plurality of sub-areas ("The display 1, as shown in FIG 1, is preferably divided into five functional subsections. At the right edge and bottom of the display 1, individual regions 41-60 are provided to allow for user selection of textual and graphic display processing commands by touching a selected one of these regions with the input pen 3", see lines 29-34 of column 12 and Fig. 1);

At least one of the plurality of sub-areas having a visual indicator representing specific information a user can submit to a computer system by moving a drawing device over the at least one of the plurality of sub-areas ("With the control subsystem 4 in the text mode, if the input pen 3 or 1014 touches the region 44 designated 'TEXT/GRAPH', the control subsystem enters the graphics mode. In the graphics mode, the path of the the input pen 3 or 1014 on the document viewing and processing area 63 is traced and made visible, and coordinate positions of thus activated display elements are stored in the data memory 10 in association with the document being processed" and "The control subsystem 4 preferably indicates that it is in the text mode by highlighting the word 'TEXT' in 'TEXT/GRAPH', or by displaying a message in the user message area 61", see lines 33-41 of column 35 and lines 67-68 of column 31 and lines 1-2 of column 32 and Fig. 1).

It is noted that More does not disclose a drawing device having an optical sensor and the base is detectable by an optical sensor. However, this is known in the art taught by Sekendur. Sekendur discloses an apparatus and method for obtaining and outputting the position and/or movement of a moveable element on a data surface comprising: a writing surface formatted with a position-related coding means for indicating X-Y coordinates, an optical data input means or detector means, a data processing means, and a data output means (see 16-22 of column 3 and lines 1-28 of abstract and Fig. 7). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Sekendur to provide an interface and apparatus that is easy and simple to use (see lines 17-28 of column 2, Sekendur).

23. Regarding claim 32, More discloses a portable interactive electro-optic data input/output, processing comprising:

The visual indicator comprises at least one alphanumeric symbol ("The control subsystem 4 preferably indicates that it is in the text mode by highlighting the word 'TEXT' in 'TEXT/GRAPH', or by displaying a message in the user message area 61", see lines 67-68 of column 31 and lines 1-2 of column 32 and Fig. 1).

24. Regarding claim 33, More discloses a portable interactive electro-optic data input/output, processing comprising:

The plurality of sub-areas are visually separated ("The display 1, as shown in FIG 1, is preferably divided into five functional subsections. At the right edge and bottom of the display 1, individual regions 41-60 are provided to allow for user selection of textual and graphic display processing commands by touching a selected one of these regions with the input pen 3", see lines 29-34 of column 12 and Fig. 1).

25. Regarding claim 34, More discloses a portable interactive electro-optic data input/output, processing comprising:

26. The specific information comprises an ASCII code corresponding to the visual indicator ("Hand printed text characters are recognized and preferably stored in a compact and standardized format, such as ASCII, for later display, processing, or output to external equipment" and "The control subsystem 4 preferably indicates that it is in the text mode by highlighting the word 'TEXT' in 'TEXT/GRAPH', or by displaying a message in the user message area 61", see lines 22-28 of abstract and lines 67-68 of column 31 and lines 1-2 of column 32 and Fig. 1). It is noted that the message displayed to indicate selected property is in ASCII format as the system suggested. Thus, limitation of claim is met.

27. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over More et al. (US 5,582,434; refer to as More herein) and Sekendur (US 5,582,434) as applied to claim 1 above, and further in view of Allard et al. (US 5,815,142; refer to as Allard herein).

28. Regarding claim 4, it is noted that the combination of More and Sekendur does not disclose a cellular phone, and wherein the cellular phone includes the microprocessor. However, this is known in the art taught by Allard. Allard teaches a apparatus and method for making text on a display screen in a personal communications device such as a cellular phone (see lines 40-42 of column 1 and Fig. 1-4) that the "processor determines the system as remaining in the cursor sliding mode and the process returns to blocks 806a and 806b to move the cursor to a new position and reset the timer" (see lines 43-47 of column 6). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Allard to provide a efficient way to extract and use relevant information from the display screen of a personal

communications device such as a cellular device (see lines 40-42 and 57-60 of column 1, Allard).

29. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over More et al. (US 5,582,434; refer to as More herein) and Sekendur (US 5,582,434) as applied to claim 6 above, and further in view of Weinmann et al. ("Photoshop 5.5 for Windows & Macintosh"; refer to as Weinmann herein).

30. Regarding claim 11-14, More discloses a portable interactive electro-optic data input/output, processing comprising:

The second area includes a plurality of visually distinct sub-areas ("The display 1, as shown in FIG 1, is preferably divided into five functional subsections. At the right edge and bottom of the display 1, individual regions 41-60 are provided to allow for user selection of textual and graphic display processing commands by touching a selected one of these regions with the input pen 3", see lines 29-34 of column 12 and Fig. 1);

It is noted that More does not disclose at least one of the sub-areas comprises an indication of a color, a line thickness, a type of line and a layer for deposition for a freeform graphic. However, this is know in the art taught by Weinmann. Weinmann teaches a method of operating Photoshop, an image-editing tool comprising:

Indication of a color ("The color palette is used for mixing and choosing colors", see line 1 of paragraph 1 of page 3 and 2nd Figure of page 3);

Indication of a line thickness (see 1st Figure of page 5. It is noted that by selecting different size of dots indicated changes the line thickness);

Indication of a type of line (see page 7-8. It is noted that by select different properties for a specific line size, the type of line is changed);

Indication of a layer for deposition (see section 'layers palette' of page 5-6 and 1st Figure of Page 6);

It is further noted that Photoshop provides a freeform graphic input area and different palettes (see 1st Figure of Page 1). And the palettes for indicating a color, a line thickness, a type of line and a layer for deposition can be displayed by user (see section 'the palettes' of page 2). Thus, limitation of claim is met.

It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Weinmann to provide the functions of Photoshop to a user to create a freeform graphic in More because More already shows the capability of changing image and the cited functions of Weinmann allows for more customization of the drawing.

31. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over More et al. (US 5,582,434; refer to as More herein) and Sekendur (US 5,582,434) as applied to claim 18 above, and further in view of Weinmann et al. ("Photoshop 5.5 for Windows & Macintosh"; refer to as Weinmann herein).

32. Regarding claim 25, it is noted that More does not disclose the property is selected from the group consisting of color, line thickness, line type, and layer. However, this is known in the art taught by Weinmann. Weinmann teaches a method of operating Photoshop, an image-editing tool comprising:

Group consisting color ("The color palette is used for mixing and choosing colors", see line 1 of paragraph 1 of page 3 and 2nd Figure of page 3);

Group consisting line thickness (see 1st Figure of page 5. It is noted that by selecting different size of dots indicated changes the line thickness);

Group consisting type of line (see page 7-8. It is noted that by select different properties for a specific line size, the type of line is changed);

Group consisting layer for deposition (see section 'layers palette' of page 5-6 and 1st Figure of Page 6);

It is further noted that Photoshop provides a freeform graphic input area and different palettes (see 1st Figure of Page 1). And the palettes for indicating a color, a line thickness, a type of line and a layer for deposition can be displayed by user (see section 'the palettes' of page 2). Thus, limitation of claim is met.

33. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over More et al. (US 5,582,434; refer to as More herein) and Sekendur (US 5,582,434) as applied to claim 15 above and further in view of Kiraly et al. (US 6,249,606; refer to as Kiraly herein).

34. Regarding claim 16, it is noted that the combination of More and Sekendur does not disclose the microprocessor is adapted to assign a time-stamp to the position detected by the optical sensor. However this is known in the art taught by Kiraly. Kiraly teaches a gesture category recognition that "allows a computer system to accept input data, originating from a user, in the form gesture data that are made using a cursor directing device...coordinate position information of the mouse and time stamps are recorded as gesture data in memory based on the user gesture" (see lines 29-43 of column 2 and Fig. 1). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Kiraly to provide the advantage of getting more

information from the cursor directing device to have real-time free style user-directed movement (see lines 65-67 of column 1 and lines 1-4 of column 2, Kiraly).

35. Regarding claim 17, it is noted that the combination of More and Sekendur does not disclose the microprocessor is adapted to determine an order in which the position was detected relative to other positions detected by the optical sensor. However this is known in the art taught by Kiraly. Kiraly teaches a gesture category recognition which "determining first feature elements for each stroke of the gesture data based on an end point of a respective storke and a start point of a next stroke" (see lines 14-16 of column 3 and Fig. 1). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Kiraly to provide the advantage of getting more information from the cursor directing device to have real-time free style user-directed movement (see lines 65-67 of column 1 and lines 1-4 of column 2, Kiraly).

36. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over More et al. (US 5,582,434; refer to as More herein) and Sekendur (US 5,582,434) as applied to claim 18 above, and further in view of Kiraly et al. (US 6,249,606; refer to as Kiraly herein).

37. Regarding claim 19, it is noted that More does not disclose assigning a time-stamp to the position corresponding to the position indicator. However this is known in the art taught by Kiraly. Kiraly teaches a gesture category recognition that "allows a computer system to accept input data, originating from a user, in the form gesture data that are made using a cursor directing device...coordinate position information of the mouse and time stamps are recorded as gesture data in memory based on the user gesture" (see lines 29-43 of column 2 and Fig. 1). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Kiraly to provide

the advantage of getting more information from the cursor directing device to have real-time free style user-directed movement (see lines 65-67 of column 1 and lines 1-4 of column 2, Kiraly).

38. Regarding claim 20, it is noted that More does not disclose determining an order in which the position was detected relative to other positions detected by the optical sensor. However this is known in the art taught by Kiraly. Kiraly teaches a gesture category recognition which "determining first feature elements for each stroke of the gesture data based on an end point of a respective storke and a start point of a next stroke" (see lines 14-16 of column 3 and Fig. 1). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Kiraly to provide the advantage of getting more information from the cursor directing device to have real-time free style user-directed movement (see lines 65-67 of column 1 and lines 1-4 of column 2, Kiraly).

Conclusion

39. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tojo (US 6,507,345) discloses "Apparatus and Method for Creating Graphics".

Johnston (US 5,546,528) discloses "Method of Displaying Multiple Sets of Information in the Same Area of a Computer Screen".

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Po-Wei (Dennis) Chen whose telephone number is (703) 305-8365. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on (703) 305-4717. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-6743 for regular communications and (703) 308-6743 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Po-Wei (Dennis) Chen
Examiner
Art Unit 2697

Po-Wei (Dennis) Chen
April 16, 2003